

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

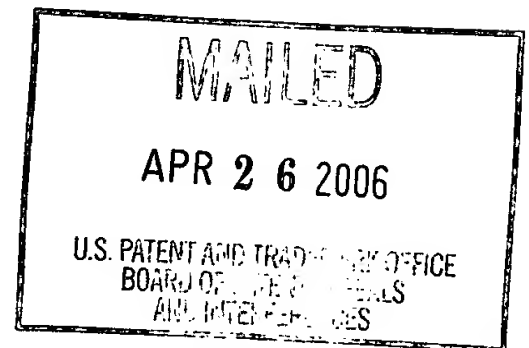
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte TOSHIHIRO YAMASHITA and HIROTOSHI ISE

Appeal No. 2006-0831
Application No. 09/901,038

ON BRIEF



Before KRATZ, TIMM and FRANKLIN, Administrative Patent Judges.
KRATZ, Administrative Patent Judge.

REMAND TO THE EXAMINER

Our consideration of this appeal leads us to conclude that this case is not in condition for a decision at this time. Accordingly, we remand this application to the examiner to consider the following issues and to take appropriate action.

This appeal was taken pursuant to 35 U.S.C. § 134 from the final rejection of claims 1-7. Appellants' invention relates to a plasma processing system, including a processing chamber having a pair of electrodes located therein and three separately claimed functional apparatus limitations. The first of those apparatus limitations is directed to performing the function of generating

a plasma, the second apparatus element serves to retain and remove a substrate from one of the electrodes while that electrode is functioning as a sample table, and the third element functions to detect a removal state of electrical charges from the substrate via impedance variations between the sample table and the substrate. Claim 1, which is reproduced below, is illustrative of the claimed invention.

1. A plasma processing system comprising:

a processing chamber;

a pair of electrodes disposed so as to mutually oppose within said processing chamber;

a RF feeding apparatus for generating plasma between said pair of electrodes;

a retaining/removal apparatus for retaining a substrate to be processed on and removal from a sample table while one of said pair of electrodes is taken as the sample table; and

a detection apparatus for detecting the electrostatic-chucking state of the substrate and for detecting removal state of electrical charges from the substrate, on the basis of variations in impedance arising between the sample table and the substrate.

Any initial inquiry into the propriety of the examiner's Section 102 and Section 103 rejections advanced in the answer requires the determination of the scope of the claimed subject matter. In re Paulsen, 30 F.3d 1475, 1479, 31 USPQ2d 1671, 1674 (Fed. Cir. 1994). Generally, we give the terms in the claims on

appeal the broadest reasonable meaning consistent with the appellants' specification as they would be understood by one of ordinary skill in the art. In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997). When the terms in the claims are written in a "means-plus-function" format, however, we interpret them as being limited to the corresponding structure described in the specification and equivalents thereof in accordance with the requirements of Section 112, paragraph. As evident from the reproduced claim 1 above, the appealed system (apparatus) claims are defined at least in part by apparatus-plus-function terminology. For example, the "detection apparatus" element of appealed claim 1 is recited as performing the function of "detecting the electrostatic-chucking state of the substrate and for detecting removal state of electrical charges from the substrate, on the basis of variations in impedance arising between the sample table and the substrate."

We recognize that the absence of the word "means" may give rise to a presumption that such a limitation does not invoke the strictures of 35 U.S.C. § 112, sixth paragraph. See Signtech USA, Ltd. V. Vutech, Inc., 174 F.3d 1352, 1356, 50 U.S.P.Q.2d 1372, 1374-75 (Fed. Cir. 1999). Nonetheless under these circumstances where the claimed element in question appears to be

recited without reciting sufficient mechanical/electrical structure to convey a particular structure to one of ordinary skill in the art, the appealed claims as so written may reasonably be construed as being in "means-plus-function" format. Therefore, such a claim element would be required to be interpreted as limited to the corresponding structure described in the specification or the equivalents thereof consistent with 35 U.S.C. § 112, sixth paragraph. See In re Donaldson, 16 F.3d 1189, 1193, 29 USPQ2d 1845, 1848 (Fed. Cir. 1994) (en banc). Compare Mas-Hamilton Group v. LaGard Inc., 156 F.3d 1206, 1213, 48 USPQ2d 1010, 1016 (Fed. Cir. 1998) wherein the claimed terms "lever moving element for moving the lever" and "movable link member for holding the lever . . . and for releasing the lever" were considered as "means-plus-function" limitations invoking 35 U.S.C. § 112, sixth paragraph because the claimed limitations were described in functional terms without a showing that the term in question had an art recognized structural meaning.

This claim interpretation inquiry is particularly relevant here given that appellants appear to argue (brief, page 4) for a narrower interpretation of the claim term reproduced above by referring to their specification disclosure for corresponding

structure while skirting the § 112, sixth paragraph inquiry that at least the contested claim term appears to invoke.

As stated in B. Braun Med., Inc. v. Abbott Labs., 124 F.3d 1419, 1424, 43 USPQ2d 1896, 1899 (Fed. Cir. 1997),

structure disclosed in the specification is "corresponding" structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim. This duty to link or associate structure to function is the *quid pro quo* for the convenience of employing § 112, 6.

In other words,

the corresponding structure(s) of a means-plus-function limitation must be disclosed in the written description in such a manner that one skilled in the art will know and understand what structure corresponds to the means limitation. Otherwise, one does not know what the claim means.¹

The structures equivalent to the corresponding structure described in the specification include those which

i) perform substantially the same function in substantially the same way to produce substantially the same result, Odetics, Inc. v. Storage Tech. Corp., 185 F.3d 1259, 1267, 51 USPQ2d 1225, 1229-30 (Fed. Cir. 1990);

¹ Atmel Corp. v. Information Storage Devices Inc., 198 F.3d 1374, 1382, 53 USPQ2s 1225, 1230 (Fed. Cir. 1999).

ii) have insubstantial differences, Valmount Indus. Inc., v. Reinke Mfg. Co., 983 F.2d 1039, 1042-44, 25 USPQ2d 1451, 1453-56 (Fed. Cir. 1993);

iii) are structurally equivalent, In re Bond, 910 F.2d 831, 833, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990); and

iv) a person having ordinary skill in the art would have recognized as interchangeable, Al-Site Corp. v. VSI Int'l, Inc., 174 F.3d 1308, 1316, 50 USPQ2d 1161, 1165 (Fed. Cir. 1999).

Here, there is a dispute between the examiner and the appellants as to whether the applied prior art teaches, inter alia, the detecting apparatus limitation recited in claim 1. However, neither the examiner nor the appellants analyzes the scope of that contested claim term under Section 112, second and sixth paragraphs.

Among the prior art references of record relied upon by the examiner in rejecting the appealed claims is a Japanese Patent document No. 7-240458 to Akihiro, published on December 09, 1995.

Notwithstanding that appellants refer to "the English-language translation" thereof at page 5 of the brief and the examiner seems to have had a translation as evident by the references to paragraphs of Akihiro in the answer (see, e.g., page 10 of the answer), Board personnel were not able to locate a

copy of an English-language translation of that applied reference in the image file wrapper application contents.

Thus, upon return of this application, the examiner is to:

- 1) Determine whether or not the claim terms invoke the sixth paragraph of Section 112 and, if so, determine which specification disclosure, if any, provides structure "corresponding" to the claimed means-plus-function limitation(s) (specifying the page and line numbers in the specification and drawing figures and numerals, as necessary);
- 2) Compare the applied prior art structure(s) relied upon by the examiner with the corresponding structure(s) in the specification; and
- 3) Determine whether the prior art structure(s) is/are equivalent to or identical to the corresponding structure(s) described in the specification within the meaning of Section 102(b).

Should the examiner decide to maintain the Section 102(b) and/or Section 103 rejections employing Akihiro, as a reference, the examiner should ensure that an accurate verified English language translation of that document is made of record in the application file.

The examiner should prepare a supplemental answer to address the above matters and respond to any additional arguments furnished in appellants' reply brief filed Dec. 13, 2004.

This remand to the examiner pursuant to 37 CFR § 41.50(a)(1) (effective September 13, 2004, 69 Fed. Reg. 49960 (August 12, 2004), 1286 Off. Gaz. Pat. Office 21 (September 7, 2004)) is made for further consideration of a rejection. Accordingly, 37 CFR § 41.50(a)(2) applies if a supplemental answer is written in response to this remand by the Board.

REMANDED

Beverly A. Franklin)
BEVERLY A. FRANKLIN)
Administrative Patent Judge)

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